

UNIVERSITY OF LOUISIANA AT LAFAYETTE

PHYSICS 201

Catalog Data: General Physics I. (4,0,4). Classical and relativistic mechanics, heat, mechanical . Prereq: Math 270 or 272 with a grade of C or better. Coreq: Math 301.

Textbook: *Fundamentals of Physics*, by Halliday & Resnick, 8th Ed., Extended

Coordinator: Natalia Sidorovskaia, Chair of the Physics Department

Topics: [with contact "hours" (50 min. periods) spent on each]

1. Measurement (1)
2. Vectors (2 hrs)
3. Motion in One dimension (2 hrs)
4. Motion in a Plane (2 hrs)
5. Particle Dynamics-I (3 hrs)
6. Particle Dynamics-II (3 hrs)
7. Work and Energy (3 hrs)
8. The Conservation of Energy (3 hrs)
9. The Dynamics of Systems of Particles (3 hrs)
10. Collisions (2 hrs)
11. Rotational Kinematics (2 hrs)
12. Rotational Dynamics (2 hrs)
13. Equilibrium of Rigid Bodies (2 hrs)
14. Oscillations (3 hrs)
15. Gravitation (3 hrs)
16. Fluid Mechanics (3 hrs)
17. Waves in Elastic Media (3 hrs)
18. Sound Waves (3 hrs)
19. Temperature (2 hrs)
20. Heat and the First Law of Thermodynamics (3 hrs)
21. Kinetic Theory of Gasses (3 hrs)
22. Entropy and Second Law of Thermodynamics (3 hrs)

Grades: Grades will be assigned based on the students' performance on examinations, quizzes, and/or other assignments. A schedule of these will be provided separately.